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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,224	12/28/2001	Matthew J. Wagner	1662-55300 (P01-3881)	9085

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

MILORD, MARCEAU

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/034,224

Applicant(s)

WAGNER ET AL.

Examiner

Marceau Milord

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constien (US Patent No 6259932 B1) and Ditzik (US Patent No5983073).

Regarding claims 1, 4-5, Constien discloses a computer system (figs. 1-3), comprising: a processor; a display (13 of figs. 2-3) coupled to said processor (col. 6, lines 11- 49; 9 of figs. 1-3; col. 2, lines 26-65; col. 4, lines 2- 46; col. 6, line 53- col. 7, line 54).

However, Constien does not specifically disclose the features of a display having an external casing in which a plurality of externally exposed recessed cavities are provided, at least one recessed cavities is adapted to receive a radio module and another recessed cavity is adapted to receive an antenna module, the radio module being electrically connected to the antenna module.

On the other hand, Ditzik, from the same field of endeavor, discloses a modular microcomputer based computer and communications systems, designed for both portability and desktop uses. The systems make use of a relative large flat panel display device assembly and an expandable hinge device. The systems are capable of bi-directional real time communications of voice, audio, text, graphics and video data. The wireless communication devices may include one or more antennae. Systems may consist of a base computer unit comprising wireless communication devices that may act as a relay station relaying voice and other data between the handset and external wide area communications networks. The system may be capable of performing, personal digital assistant, cellular telephone, conventional notebook computer, desktop computer functions (col. 2, lines 34-65). Furthermore, the display assembly may include a computer system where this system has means for connection to an external wire based wide area communication network located within the assembly housing. This display clearly has an external casing in which a plurality of externally exposed recessed cavities are provided (figs. 3-6; col. 6, lines 1-42; col. 6, lines 49-64). In addition, the flat display panel device is interfacing to the system bus through display controller circuitry.

Ditzik also shows in figure 7, an external communication means (54) that may be connected to the bus, which may be capable of fast two way data transfers. The communications means should be capable of controlling communications to and from a plurality of wire and wireless communication systems. The system may include an antenna means for transmitting and receiving electromagnetic radiated signals. External communication means may be connected to one or more information or communication service providers (col. 11, lines 48-62; col. 12, lines 34-67). The unit can be configured for wire based or wireless communication operations. The

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unit can be used for general purpose computing, network computing, pen input computing, PCS/Cellular, data/video conferencing, on-line network computing and data collaboration applications. The notebook unit can be used as a personal organizer or personal information manager (col. 9, line 59- col. 10, line 19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Ditzik to the communication system of Constien in order to provide a modular multiple function display computer system that can be configured a modular notebook or PDA like computer system into a plurality of system configurations for personal computer and wide area communication operations.

Regarding claim 2, Constien as modified discloses a computer system (figs. 1-3), wherein said radio module and antenna module are flush with the outer surface of the casing (col. 6, lines 36-62).

Regarding claim 3, Constien as modified discloses a computer system (figs. 1-3), wherein said radio module is electrically connected to said antenna module via a conductor contained within said display casing (col. 6, lines 22-31).

Claim 6 contains similar limitations addressed in claims 1, 4-5, and therefore is rejected under a similar rationale.

Regarding claim 7, Constien as modified discloses a computer system (figs. 1-3), wherein a radio module is electrically connected to said antenna module via a conductor contained within said display casing (col. 6, lines 22-31).

Regarding claim 8, Constien as modified discloses a computer system (figs. 1-3), wherein a radio module is electrically connected to a plurality of antenna modules via a conductor contained within said display casing (col. 6, line 53- col. 7, line 54).

Regarding claim 9, Constien as modified discloses a computer system (figs. 1-3), wherein said plurality of radio modules is two radio modules and said plurality of antenna modules is three antenna modules (col. 6, line 53- col. 7, line 54).

Regarding claim 10, Constien as modified discloses a computer system (figs. 1-3), wherein said radio module couples to other electronics in said computer system via a digital serial bus (col. 6, lines 15- 62).

Regarding claim 11, Constien as modified discloses a computer system (figs. 1-3), wherein said bus comprises a universal serial bus (col. 6, lines 15- 62).

Regarding claims 12, 15-16, Constien discloses a display (13 of figs. 2-3) having a plurality of externally exposed recessed cavities (col. 6, lines 11- 49) formed therein (9 of figs. 2-3; col. 2, lines 26-65; col. 4, lines 2- 46; col. 6, line 53- col. 7, line 54).

However, Constien does not specifically disclose the features of a display having a plurality of externally exposed recessed cavities into which radio and antenna modules can be removably inserted to provide a wireless communication capability for said electronic device.

On the other hand, Ditzik, from the same field of endeavor, discloses a modular microcomputer based computer and communications systems, designed for both portability and desktop uses. The systems make use of a relative large flat panel display device assembly and an expandable hinge device. The systems are capable of bi-directional real time communications of voice, audio, text, graphics and video data. The wireless communication devices may include

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one or more antennae. Systems may consist of a base computer unit comprising wireless communication devices that may act as a relay station relaying voice and other data between the handset and external wide area communications networks. The system may be capable of performing, personal digital assistant, cellular telephone, conventional notebook computer, desktop computer functions (col. 2, lines 34-65). Furthermore, the display assembly may include a computer system where this system has means for connection to an external wire based wide area communication network located within the assembly housing. This display clearly has an external casing in which a plurality of externally exposed recessed cavities are provided (figs. 3-6; col. 6, lines 1-42; col. 6, lines 49-64). In addition, the flat display panel device is interfacing to the system bus through display controller circuitry.

Ditzik also shows in figure 7, an external communication means (54) that may be connected to the bus, which may be capable of fast two way data transfers. The communications means should be capable of controlling communications to and from a plurality of wire and wireless communication systems. The system may include an antenna means for transmitting and receiving electromagnetic radiated signals. External communication means may be connected to one or more information or communication service providers (col. 11, lines 48-62; col. 12, lines 34-67). The unit can be configured for wire based or wireless communication operations. The unit can be used for general purpose computing, network computing, pen input computing, PCS/Cellular, data/video conferencing, on-line network computing and data collaboration applications. The notebook unit can be used as a personal organizer or personal information manager (col. 9, line 59- col. 10, line 19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Ditzik to

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the communication system of Constien in order to provide a modular multiple function display computer system that can be configured a modular notebook or PDA like computer system into a plurality of system configurations for personal computer and wide area communication operations.

Regarding claim 13, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said radio module and antenna module are flush with the outer surface of the display (col. 6, lines 36-62).

Regarding claim 14, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein a radio module is electrically connected to an antenna module via a conductor contained within said display (col. 6, lines 22-31).

Regarding claim 17, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), including cavities for a plurality of radio modules and a plurality of antenna modules (col. 7, lines 9-63).

Regarding claim 18, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein a radio module is electrically connected to an antenna module via a conductor contained within said display (col. 6, lines 22-31).

Regarding claim 19, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein a radio module is electrically connected to a plurality of antenna modules via a conductor contained within said display (col. 6, lines 22-31).

Regarding claim 20, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said plurality of radio modules is two radio

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modules and said plurality of antenna modules is three antenna modules (col. 6, line 53- col. 7, line 54).

Regarding claim 21, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), including a recessed cavity for a communication hub interconnecting said radio module to said electronic device (col. 6, lines 11- 56).

Regarding claim 22, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said electronic device comprises a notebook computer (col. 6, lines 29- 49).

Regarding claim 23, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said electronic device comprises a handheld computer (col. 6, line 36- col. 7, line 45).

Response to Arguments

3. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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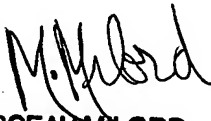
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MARCEAU MILORD

Marceau Milord

Primary Examiner

Art Unit 2618


MARCEAU MILORD
PRIMARY EXAMINER